


```

Db      221 TLHSTSPAEDEFTRHVLQIHRSKGLQDLGGISMOQLALMLIFVIYSIMKGVTSKGV 280
      240 VAVTALPYVLLILLAGVTLPGATREGIRYLPPEMKLONSKWIDAASQIFPSLGRG 299
      261 VAVTALPYVLLILLAGVTLPGATREGIRYLPPEMKLONSKWIDAASQIFPSLGRG 340
      300 FGTLLALSYNNKFNKCYADALITSSINCLTSFLAGFYFVSIVGMAHONKSIEVGL 359
      341 FGVLALFASYNKFNKCYADALITSSINCLTSFLAGFYFVSIVGMAHONKSIEVGL 400
      360 -GPGVLFVYPPALVTMGVFWALIFFLMLITLGLDSTFGGLEAVTTALCDEYPRVLR 418
      401 AGPSLFTFYEAIAINMPASTFEFAIFFMLITLGLDSTFGGLEAVTTALCDEYPRVLR 460
      419 HREVVAVALLFYICALPTTGGVYLVLDLNVYGPGLALFVFAEAGCWYGVDR 478
      461 RRRFVLAVVITCFPGSLVTLTFEGAYVVKLEEVATGPVAVTALIEVAVSMVEYGTQ 520
      479 FSEDVRLMGLHPTGFWFMTGWSYISPVFLVLFVSVLAHEEMLGGEYTPSMSTVGWV 538
      521 FCRDVKEMLGSPGFWFMTGWSYISPVFLVLFVSVLAHEEMLGGEYTPSMSTVGWV 580
      539 MTGTVSCIPLYIYKLLTPGNCINR-IKTIQREPVTSIPPADSTL 584
      581 IGTSSFICIPYIAYRIITPQTFEKRIKTSITPTEIPTEIPGDIRL 627

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RESULT 2

neurotransmitter transport protein - rat
 C:Species: Rattus norvegicus (Norway rat)
 C:Date: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 20-Aug-1999
 C:Accession: S30604
 R:Mayser, W.; Betz, H.; Schloss, P.
 FEBS Lett. 295, 203-206, 1991
 A:Title: Isolation of cDNAs encoding a novel member of the neurotransmitter transporter
 A:Reference number: S30604; MUID:92111740; PMID:1765155
 A:Accession: S30604
 A:Status: preliminary
 A:Molecule type: mRNA
 A:Residues: 1-630 <MA>
 A:Cross-references: EMBL:X63995; NID:956779; PIDN:CAA45401.1; PID:956780
 C:Superfamily: gamma-aminobutyric acid transporter
 C:Keywords: transmembrane protein

```

Query Match      54.5%; Score 1712; DB 2; Length 630;
Best Local Similarity 54.5%; Pred. No. 7,5e-122;
atches 315; Conservative 100; Mismatches 147; Indels 16; Gaps 6;

      17 LPATTA--OKRSVSVSLTP-----ARQETWAKAEFLAVGVFAVDLGVMREPYIC 68
      50 VPSISAGEASHISIAATTTTVAELRQGERETMGKMKDFLSVIGYAVDLGIMREPYIC 109
      69 YONGGAFLLPYCVMLFEGPLFLELALAGQYHRCGLTLMKRICPALKGVAICMID 128
      110 YONGGAFLLPYTMAIFEGIPLFYEMELALGOYHRCGLTLMKRICPALKGVAICMID 169
      129 -IYMGVYNTIIGMAVYVLLASIASINSVLPMTSCNENMTPLCTPYTSPTQ---NPNSST 185
      170 FYIASVYNTIIGMAVYVLLASIASINSVLPMTSCNENMTPLCTPYTSPTQ---NPNSST 226
      186 PAKEFFERNVLEQHSNGLDDMKPIKPSIALCVFVFLVYFSLKMGVRSACKVYVWVATL 245
      227 PAEEFYLRHVLDQIHSKGLQDLGTTISNQLTLCIVLIFVIYFISIMKGVTSKVVWVAT 286
      246 APYVVLILLAGVTLPGATREGIRYLPPEMKLONSKWIDAASQIFPSLGRGFTLLA 305
      287 FPYIYLVAVLPGATREGIRYLPPEMKLONSKWIDAASQIFPSLGRGFTLLA 346
      306 LSYNNKFNKCYADALITSSINCLTSFLAGFYFVSIVGMAHONKSIEVGLF-GPGV 364
      347 FASYNNKFNKCYADALITSSINCLTSFLAGFYFVSIVGMAHONKSIEVGLF-GPGV 406

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OY      365 FIVEPEATMGVFWALIFFLMLITLGLDSTFGGLEAVTTALCDEYPRVLRHREVF 424
      407 FITYEAIAINMPASTFEFAIFFMLITLGLDSTFGGLEAVTTALCDEYPRVLRHREVF 466
      425 AVLLFYICALPTTGGVYLVLDLNVYGPGLALFVFAEAGCWYGVDRSEDR 484
      467 LIVITCVLGSLLTLTSGAVVYVTLLEEVATGPVAVTALIEVAVSMVEYGTQCSDVK 526
      485 TMLGHTPGFWFMTGWSYISPVFLVLFVSVLAHEEMLGGEYTPSMSTVGWV 544
      527 EMLGSPGFWFMTGWSYISPVFLVLFVSVLAHEEMLGGEYTPSMSTVGWV 586
      545 SCIPYIYKLLTPGNCINR-IKTIQREPVTSIPPAD 581
      587 ICIPYIYKLLTPGNCINR-IKTIQREPVTSIPPAD 624

```

RESULT 3

serotonin transport protein - rat
 C:Species: Rattus norvegicus (Norway rat)
 C:Date: 13-Jan-1995 #sequence_revision 13-Jan-1995 #text_change 16-Feb-1997
 C:Accession: S19585
 R:Blakely, R.D.; Berson, H.E.; Freneau Jr., R.T.; Caron, M.G.; Peek, M.M.; Prince, H.
 Nature 354, 66-70, 1991
 A:Title: Cloning and expression of a functional serotonin transporter from rat brain.
 A:Reference number: S19585; MUID:92049754; PMID:1944572
 A:Accession: S19585
 A:Status: preliminary
 A:Molecule type: mRNA
 A:Residues: 1-607 <BLA>
 A:Cross-references: EMBL:X63253
 C:Superfamily: gamma-aminobutyric acid transporter
 C:Keywords: transmembrane protein

```

Query Match      54.4%; Score 1710; DB 2; Length 607;
Best Local Similarity 54.6%; Pred. No. 1e-121;
Matches 315; Conservative 98; Mismatches 148; Indels 16; Gaps 6;

      18 PATTA--OKRSVSVSLTP-----ARQETWAKAEFLAVGVFAVDLGVMREPYIC 69
      28 PGTSGADEASHISIPATTTTVAELRQGERETMGKMKDFLSVIGYAVDLGIMREPYIC 87
      70 ONGGAFLLPYCVMLFEGPLFLELALAGQYHRCGLTLMKRICPALKGVAICMID 129
      88 ONGGAFLLPYTMAIFEGIPLFYEMELALGOYHRCGLTLMKRICPALKGVAICMID 147
      130 YMGVYNTIIGMAVYVLLASIASINSVLPMTSCNENMTPLCTPYTSPTQ---NPNSST 186
      148 FYIASVYNTIIGMAVYVLLASIASINSVLPMTSCNENMTPLCTPYTSPTQ---NPNSST 204
      187 AKPEFFERNVLEQHSNGLDDMKPIKPSIALCVFVFLVYFSLKMGVRSACKVYVWVATL 246
      205 AEEFYLRHVLDQIHSKGLQDLGTTISNQLTLCIVLIFVIYFISIMKGVTSKVVWVAT 264
      247 PYVVLILLAGVTLPGATREGIRYLPPEMKLONSKWIDAASQIFPSLGRGFTLLA 306
      265 PYIYLVAVLPGATREGIRYLPPEMKLONSKWIDAASQIFPSLGRGFTLLA 324
      307 SSYNNKFNKCYADALITSSINCLTSFLAGFYFVSIVGMAHONKSIEVGLF-GPGV 365
      325 ASYNNKFNKCYADALITSSINCLTSFLAGFYFVSIVGMAHONKSIEVGLF-GPGV 384
      366 IYPAIYLVAVLPGATREGIRYLPPEMKLONSKWIDAASQIFPSLGRGFTLLA 425
      385 IYPAIYLVAVLPGATREGIRYLPPEMKLONSKWIDAASQIFPSLGRGFTLLA 444
      426 VILLFYICALPTTGGVYLVLDLNVYGPGLALFVFAEAGCWYGVDRSEDR 485
      445 IVITVCVLSLLTLTSGAVVYVTLLEEVATGPVAVTALIEVAVSMVEYGTQCSDVKE 504
      486 MLGHTPGFWFMTGWSYISPVFLVLFVSVLAHEEMLGGEYTPSMSTVGWVMTGTTVS 545

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Db 505 MGFSPGFWIRICWVAISPLFLFIICSEFLMSPPOLRQYVNPVPHMSIVLGYCIGMSVYL 564
QY 546 CIPLYIYKLLITPGNCINR-IKTQREPVTISIPAD 581
Db 565 CIPYIYKLLITPGTLKERIKITSTPEPTPEIPGCD 601

RESULT 4

noradrenaline transport protein - bovine
C:Species: Bos primigenius taurus (cattle)
C:Date: 25-Oct-1994 #sequence_revision 12-Apr-1996 #text_change 20-Aug-1999
C:Accession: S43285
R:lingen, B.; Bruess, M.; Boenisch, H.
FEBS Lett. 342, 235-238, 1994
A:Title: Cloning and expression of the bovine sodium- and chloride-dependent noradrenaline
A:Reference number: S43285, MUID:94200377, PMID:8150077
A:Status: nucleic acid sequence not shown
Molecule type: mRNA
Residues: 1-615 <LIN>

A:Cross-references: EMBL:X79015; NID:g1050438; PIDN:CAA55645.1; PID:g1050439
C:Superfamily: gamma-aminobutyric acid transporter
C:Keywords: glycoprotein; phosphoprotein; transmembrane protein
F:63-83/Domain: transmembrane #status predicted <TM1>
F:91-113/Domain: transmembrane #status predicted <TM2>
F:134-154/Domain: transmembrane #status predicted <TM3>
F:235-254/Domain: transmembrane #status predicted <TM4>
F:260-282/Domain: transmembrane #status predicted <TM5>
F:309-329/Domain: transmembrane #status predicted <TM6>
F:341-363/Domain: transmembrane #status predicted <TM7>
F:392-416/Domain: transmembrane #status predicted <TM8>
F:442-460/Domain: transmembrane #status predicted <TM9>
F:473-496/Domain: transmembrane #status predicted <TM10>
F:517-535/Domain: transmembrane #status predicted <TM11>
F:554-577/Domain: transmembrane #status predicted <TM12>
F:257,577,581/Binding site: phosphate (Ser) (covalent) #status predicted

Query Match

Best Local Similarity 51.2%; Score 1608.5; DB 2; Length 615;
Matches 296; Conservative 107; Mismatches 146; Indels 33; Gaps 7;

QY 6 APPAPAPPDLPATTACKRSRVVSLTPARO-----RETMAKKAFFLLAVGVAVDLGN 60
Db 17 AAGPSGQPRRKRREYLVYKERNVQCLLASRGDDEPRETWGKKIDFLSVGFADLAN 76
QY 61 VWRFPYICQNGGAFILPYCYMLFGLPLFLELALGQYHRCGCTLMKRICPALKGV 120
Db 77 VWRFPYLCYKNGGAFILPYCYMLFGLPLFLELALGQYHRCGCTLMKRICPALKGV 135
QY 121 GVAICMIDLYMGMYNTIIGMAVYVLIASLASINSVLPMTSCDNENMTFLCPVTSPTQ 180
Db 136 GVAIVLILYGVFYVNIIVIASLSYL--FSSFTPTLLPMTDCGHANNSNC-----TD 185
QY 181 P---NSS-----TPAKEFFERNVLEQHSNGLDMDGPIKPSLALCVFVGLV 224
Db 186 PRLNLSVYGNHTKSKYKFTPAEFYERGVLIHSSSGIHGIDGLPQMOQLLCLITVIV 245
QY 225 VYFSLMKVRSAGKVVMTALAPYVLLILLAGVTLPGATGEGIRYVLPENMKLQNSKV 284
Db 246 LEFSLMKVRSAGKVVMTALAPYVLLILLAGVTLPGATGEGIRYVLPENMKLQNSKV 305
QY 285 WIDAAQQIFESLGPFGTLLALSYNKNFNNCYRDLLTSINCLTSLAGFVIFSVGLV 344
Db 306 WIDAAQQIFESLGPFGTLLALSYNKNFNNCYRDLLTSINCLTSLAGFVIFSVGLV 365
QY 345 MAHVONKSIEVGLRPGVLFVYPAEATMTGSVWATIFFMLTLTGLDSTFGGLEAV 404
Db 366 MAHEHKVNIEDVATBEGAGVLFILYPAEISTLSGSTFWATVFFIMLALGIDSSMGMEAV 425
QY 405 TIALCDEYRVLGRHREVVAVLLFIYICALPTTTYGGVYVLDLINVGPGLALIFVVP 464

Db 426 ITGLADDF-QVLKRHRKLTFFAVSFQTLALFCITKGCIGYVLTLLDFAAGTSLIFAVL 484
QY 465 AAGAGCWYGVDRSEEDRTMIGHTRPGMFWRTQWISIPVLLVFSVLAHEMLGG 524
Db 485 MEAIGSWFYGVDRSNDIQMMGFRPGVLRGCMFVSPAPLIFVYIISINFPLTYD 544
QY 525 EYTPSMSITGVMMGTVCSCPIYIYKLLITPGNCINRI 566
Db 545 DYIFPLMAMWVGIGAGSSMVLPAIYVKKFSTROSINERL 586

RESULT 5

noradrenaline transport protein - human
C:Species: Homo sapiens (man)
C:Date: 18-Feb-1994 #sequence_revision 10-Nov-1995 #text_change 20-Aug-1999
C:Accession: S14278
R:Pacholczyk, T.; Blakely, R.D.; Amara, S.G.
Nature 350, 350-354, 1991
A:Title: Expression cloning of a cocaine- and antidepressant-sensitive human noradren
A:Reference number: S14278, MUID:91179515, PMID:2008212
A:Accession: S14278
A:Status: preliminary
A:Molecule type: mRNA
A:Residues: 1-617 <PAC>
A:Cross-references: GB:M65105; NID:g189257; PIDN:AAA59943.1; PID:g189258
C:Genetics:
A:Gene: GDB:SLC6A2; NAT1
A:Cross-references: GDB:127367; OMIM:163970
A:Map position: 16q12.2-16q12.2
C:Superfamily: gamma-aminobutyric acid transporter
C:Keywords: transmembrane protein

Query Match

Best Local Similarity 51.1%; Score 1605.5; DB 2; Length 617;
Matches 307; Conservative 106; Mismatches 155; Indels 27; Gaps 10;

QY 1 MPSPDAP---APTAPPDLPATTACKRSRVVSLTPARO-----RETMAKKAFF 47
Db 6 MPQVQPEKNGGADTGEQPLRAKTRAEVLVYKERNVQCLLAPRDGDAOPRETWGGKIDF 65
QY 48 LIAVGFVAVDLGNWMBPPIYCYONGGAFILPYCYMLFGLPLFLELALGQYHRCGCT 107
Db 66 LLSVGFVAVDLGNWMBPPIYCYONGGAFILPYCYMLFGLPLFLELALGQYHRCGCT 125
QY 108 TLMKRICPALKGVYICMIDLYMGMYNTIIGMAVYVLIASLASINSVLPMTSCDNEN 167
Db 126 TLMKRICPALKGVYICMIDLYMGMYNTIIGMAVYVLIASLASINSVLPMTSCDNEN 181
QY 168 TPLCT-----PVTSPTQ--NPNSSTPAKEFFERNVLEQHSNGLDMDGPIKPSLALCV 218
Db 182 SPKCTPRLKLLNSVYGNHTKSKYKFTPAEFYERGVLIHSSSGIHGIDGLPQMOQLLCL 241
QY 219 FGVEVLVYFSLMKVRSAGKVVMTALAPYVLLILLAGVTLPGATGEGIRYVLPENMK 278
Db 242 MVVIVILYFSLMKVRSAGKVVMTALAPYVLLILLAGVTLPGATGEGIRYVLPENMK 301
QY 279 LQNSKVIDAASQIFESLGPFGTLLALSYNKNFNNCYRDLLTSINCLTSLAGFVIF 338
Db 302 LQNSKVIDAASQIFESLGPFGTLLALSYNKNFNNCYRDLLTSINCLTSLAGFVIF 361
QY 339 FSVLGMAMVONKSIEVGLRPGVLFVYPAEATMTGSVWATIFFMLTLTGLDSTFG 398
Db 362 FSVLGMAMVONKSIEVGLRPGVLFVYPAEATMTGSVWATIFFMLTLTGLDSTFG 421
QY 399 GGLVAVTALCDEYRVLGRHREVVAVLLFIYICALPTTTYGGVYVLDLINVGPGLA 458
Db 422 GGLVAVTALCDEYRVLGRHREVVAVLLFIYICALPTTTYGGVYVLDLINVGPGLA 480
QY 459 ILFVFAEAGCWYGVDRSEEDRTMIGHTRPGMFWRTQWISIPVLLVFSVLAHEML 518
Db 481 ILFVFAEAGCWYGVDRSEEDRTMIGHTRPGMFWRTQWISIPVLLVFSVLAHEML 540

C:Superfamily: gamma-aminobutyric acid transporter

Query Match 49.4%; Score 1552; DB 2; Length 620;
Best Local Similarity 50.1%; Pred. No. 9.6e-110;
Matches 283; Conservative 110; Mismatches 156; Indels 16; Gaps 5;

```

OY 17 LPATTAQSRSSVSVSLTPARORETMAKAEFLAVGVAVDLGNVWREPYICYONGGAF 76
   |::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|
Db 42 LTSSTLTNPQ---SPVEADQRETMGKKIDFLSVIGFAVDLANVWREPYICTYNGGAF 98
OY 77 LIPCYMLLFGGLPLFLELALGOYHRCGCLTLKRICPALKGVAICMIDYMGMYN 136
   |::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|
Db 99 LVPYLLFVNIAGMPLFVMEALAGOFNREGAGVWK-ICPILKGVGFYILISLVGFYFN 157
OY 137 TIIGMAVYLLASIASINSVLPWTSQDNEMNTPICTPYTSQTPNNS-----TPAK 188
   |::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|
Db 158 VIIMALHYL---FSSFTTELPWTHCNNSMSPNCSDAHPDSDSGSLMDTFGTTPAA 214
OY 189 EEFERNVLEQHSKNGLDMPKIPSLACVGFVPLVYFSLMKGVSAGKVVWYATALAPY 248
   |::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|
215 EYFERGVHLHQSHGIDDLGPRMQLTCLVLYTLVLFSLMKGVKTSKGVWMTATMPY 274
OY 249 VVLLILARGVTLPGATEGIRYLLTPREMKLONSKWIDAASQIFSLGPGFTLLALS 308
   |::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|
Db 275 VVLLALLRGVTLPGALDGIIRAYLSVDYRFLCEASWIDATQVCFSLGVGFVLIAPSS 334
OY 309 YNKNFNNNCYRALITSSINCLTSLFAGVIFSVLGMAHVNKSTEEVGLGPGVLYFY 368
   |::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|
Db 335 YNKTFTNNCYRALIVTSSINCLTSSFGVSVFLGYMOKHSVPGDAKOGPGILFIY 394
OY 369 PEATATMTGSVFMALIFFLMLITLGLDSTFGLEAVTALCDEYPRVLRHREYFAVLL 428
   |::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|
Db 395 PEATATLPLSSAMAVFEIMLTGLIDSAMGMESVITGLDEF-QLLHRRRELTFTLY 453
OY 429 LFIYICALPTTYGGVYLVLDLNNYGPGLAILFVFAEAGVWYVDRESEDTYRTMG 488
   |::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|
Db 454 LATFLSLFCVYNGIYVFTLLDHPAAGTSLFGLVLAIGVAMFYGVGFSDDIQMTG 513
OY 489 HTPGFMFTCSYISPVLLVLFVSVLAHEMIGEETYSMTSTTVGWMTGTVSCIP 548
   |::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|
Db 514 QRPSTLYMLCKKLVSPCFLFVVVSVYTFPRPHGAVIFPDMAALGVAITATSSMAVP 573
OY 549 LYIYKLLITPGNCINRIKTQRP 573
Db 574 IYAAVKFCSLPGSFREKLAYAIAP 598

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RESULT 9

A:Species: Homo sapiens (man)
C:Date: 19-Dec-1993 #sequence_revision 18-Nov-1994 #text_change 20-Aug-1999

C:Accession: A48980; A46198; I57952

R:Vanderberg, D.J.; Persico, A.M.; Uhl, G.R.
Brain Res. Mol. Brain Res. 15, 161-166, 1992

A:Title: A human dopamine transporter cDNA predicts reduced glycosylation, displays a no

A:Reference number: A48980; MUID:93061810; PMID:1353873

A:Accession: A48980

A:Molecule type: mRNA

A:Residues: 1-620 <VAN>

A:Cross-references: GB:M95167; NID:g703094; PIDN:AAQ41720.1; PID:g9181656

A>Note: sequence extracted from NCBI Backbone (NCBIN:117141, NCBI:P:117142)

R:Bannon, M.J.; Poosch, M.S.; Xia, Y.; Goebel, D.J.; Cassin, B.; Kapatos, G.
Proc. Natl. Acad. Sci. U.S.A. 89, 7095-7099, 1992

A:Title: Dopamine transporter mRNA content in human substantia nigra decreases precipitac

A:Reference number: A46198; MUID:92357778; PMID:1353885

A:Accession: A46198

A:Molecule type: mRNA

A:Residues: 164-255 <BAN>

A:Cross-references: GB:M96670; NID:g181653; PIDN:AAA35770.1; PID:g553260

A:Experimental source: substantia nigra

A>Note: sequence extracted from NCBI Backbone (NCBIN:11687, NCBI:P:11688)

R:Pistupa, Z.B.; Wilson, J.M.; Hoffman, B.J.; Kish, S.J.; Niznik, H.B.

Mol. Pharmacol. 45, 125-135, 1994

A:Title: Pharmacological heterogeneity of the cloned and native human dopamine transp

A:Reference number: 157952; MUID:94134051; PMID:8302271

A:Accession: I57952

A:Status: Preliminary; translated from GB/EMBL/DBJ

A:Molecule type: mRNA

A:Residues: 1-620 <RES>

A:Cross-references: GB:L24178; NID:g401764; PIDN:AAA19560.1; PID:g401765

A:Gene: GDB:SLC6A3; DAT1

A:Cross-references: GDB:132445; OMIM:126455

A:Map position: 5p15.3-5p15.3

C:Superfamily: gamma-aminobutyric acid transporter

C:Keywords: transmembrane protein

Query Match 49.1%; Score 1542; DB 2; Length 620;

Best Local Similarity 49.9%; Pred. No. 5.5e-109;

Matches 282; Conservative 110; Mismatches 157; Indels 16; Gaps 5;

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OY 17 LPATTAQSRSSVSVSLTPARORETMAKAEFLAVGVAVDLGNVWREPYICYONGGAF 76
   |::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|
Db 42 LTSSTLTNPQ---SPVEADQRETMGKKIDFLSVIGFAVDLANVWREPYICTYNGGAF 98
OY 77 LIPCYMLLFGGLPLFLELALGOYHRCGCLTLKRICPALKGVAICMIDYMGMYN 136
   |::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|
Db 99 LVPYLLFVNIAGMPLFVMEALAGOFNREGAGVWK-ICPILKGVGFYILISLVGFYFN 157
OY 137 TIIGMAVYLLASIASINSVLPWTSQDNEMNTPICTPYTSQTPNNS-----TPAK 188
   |::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|
Db 158 VIIMALHYL---FSSFTTELPWTHCNNSMSPNCSDAHPDSDSGSLMDTFGTTPAA 214
OY 189 EEFERNVLEQHSKNGLDMPKIPSLACVGFVPLVYFSLMKGVSAGKVVWYATALAPY 248
   |::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|
215 EYFERGVHLHQSHGIDDLGPRMQLTCLVLYTLVLFSLMKGVKTSKGVWMTATMPY 274
OY 249 VVLLILARGVTLPGATEGIRYLLTPREMKLONSKWIDAASQIFSLGPGFTLLALS 308
   |::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|
Db 275 VVLLALLRGVTLPGALDGIIRAYLSVDYRFLCEASWIDATQVCFSLGVGFVLIAPSS 334
OY 309 YNKNFNNNCYRALITSSINCLTSLFAGVIFSVLGMAHVNKSTEEVGLGPGVLYFY 368
   |::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|
Db 335 YNKTFTNNCYRALIVTSSINCLTSSFGVSVFLGYMOKHSVPGDAKOGPGILFIY 394
OY 369 PEATATMTGSVFMALIFFLMLITLGLDSTFGLEAVTALCDEYPRVLRHREYFAVLL 428
   |::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|
Db 395 PEATATLPLSSAMAVFEIMLTGLIDSAMGMESVITGLDEF-QLLHRRRELTFTLY 453
OY 429 LFIYICALPTTYGGVYLVLDLNNYGPGLAILFVFAEAGVWYVDRESEDTYRTMG 488
   |::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|
Db 454 LATFLSLFCVYNGIYVFTLLDHPAAGTSLFGLVLAIGVAMFYGVGFSDDIQMTG 513
OY 489 HTPGFMFTCSYISPVLLVLFVSVLAHEMIGEETYSMTSTTVGWMTGTVSCIP 548
   |::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|
Db 514 QRPSTLYMLCKKLVSPCFLFVVVSVYTFPRPHGAVIFPDMAALGVAITATSSMAVP 573
OY 549 LYIYKLLITPGNCINRIKTQRP 573
Db 574 IYAAVKFCSLPGSFREKLAYAIAP 598

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RESULT 10

A:Species: Rattus norvegicus (Norway rat)

C:Date: 02-Aug-1996 #sequence_revision 02-Aug-1996 #text_change 20-Aug-1999

C:Accession: I59558; I59559

R:Shimada, S.; Kitayama, S.; Lin, C.
Science 254, 576-578, 1991

A:Title: Cloning and expression of a cocaine-sensitive dopamine transporter cDNA.

A:Reference number: I59558; MUID:92054539; PMID:1948034

A:Accession: I59558

A:Status: Preliminary

A:Molecule type: translated from GB/EMBL/DBJ

[illegible]

```

OY 134 YNNTIIGAAVYLLIASLASINSVLDPMPTSCDNDMPLOC-----FVTPQTPQNPNS---184
Db 136 FYNYLLANGMLATYSF-SFN--LPMASNNSTINSPACERPHMSDEGTMCMSRANSVSA 192
OY 185 --TPAKEFEFERNVLEOHKSN-----GLDDMCPKRPSLACVGEFVLYEFSLMKCV 233
Db 193 EKISAABEYFYFGFLGHEANPNSHVIRSVYDLDGNVRDIALSLFVYLITCFYSMMKGI 252
OY 234 RSAGKVVWVWTALAPYVVDLLILARGVTLPGATEGIRYUULTPEMHKLQNSKXWIDAISOIF 293
Db 253 HTSGKVVWVWTALFPYVVDLILFIRGYTLPGOMONGIEYLRPNFEMLKRRSVODATQYF 312
OY 294 FSLGFGFTLLALSSYNNKNNNNCYRDALITSSINCLTSPSLAGFVIRSVLGMANHWONKSI 353
Db 313 FSLGGFPGYLLMAYSSYNDFHNHNVYDALLTSPFINCATSPSLSGVIRFSVLGYSMCKSGKPI 372
OY 354 BEVLEGPGVLYEYVYPEALATMTGSVEMAIFFMLITLGLDSTPFGLEAVYTTALCDEXP 413
Db 373 EAVAGEGPGVLYEYVYPEALSTMPYAPFVSWYLFELMLMTITGLDSSFGSGSEIITGLSDEF 432
OY 414 RYLGRHREVEYAVVLLLFYICALPTTYGCVYLVLDLNNYGPGLALILEVYFABAGVCVY 473
Db 433 -ILKKNREVEYCLPEAFYVWVIGIAMCTEGCILLIMELIITYGTWGLLAVFCAMVIAYI 491
OY 492 YGVDRFSEDEVYRMLGHTPGMEWRKTCWYSIPVFLVLYEFSVLAHEEMLGGEYTPYSWSI 533
Db 551 YGLRQFVHDVHEKMEGFRPGNYMKWFGSCAAPFILLISMTINSFNINQALYQODYTYPTAAN 551
OY 534 TVGWMTGTGYTSCIPLYIITKLLITPGNCINR-----IKTIORPEVTSIPPADST 583

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RESULT 14
A:8716
glycine transporter GLYT2 - rat
C:Species: Rattus norvegicus (Norway rat)
C:Date: 02-Jun-1995 #sequence_revision 02-Jun-1995 #text_change 02-Jun-1995
C:Accession: A48716
R:Lin. Q.R.: Lopez-Corcuera, B.; Mandiyan, S.; Nelson, H.; Nelson, N.
J. Biol. Chem. 268, 22802-22808, 1993
A:Title: Cloning and expression of a spinal cord- and brain-specific glycine transport
A:Reference number: A48716; MUID:94043045; PMID:8226790
A:Accession: A48716
A:Status: preliminary
A:Molecule type: mRNA
A:Residues: 1-799 <LII>
A:Cross-references: GB:L21672
C:Genetics:
A:Gene: GLYT2
C:Keywords: brain; transmembrane protein

Query Match      43.4%  Score 1363.5;  DB 2;  Length 799;
Best Local Similarity  44.5%;  Pred. No. 2,4e-95;
Matches 255;  Conservative 107;  Mismatches 170;  Indels 41;  Gaps 4;

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[illegible]

Query Match	43.4%	Score 1363.5	DB 2	Length 799
Best Local Similarity	44.5%	Pred. No. 2.4e-95		
Matches	255	Conservative 107	Mismatches 170	Indels 41
			Gaps	4

QY	36	RORETAAKAEFLAVVGFAYDLGNVWRFPYICYONGGAGFLPYCYMLFGGLPFELE	95
DB	191	KARGWSSSKDLPIISMWGYAVGLGNVWRFPFLAYLONGGAGFLPYLMLLAGLPFELE	250
QY	96	LALGQYHSCGLTLTMKRICPALKGVYATCIDIDYMGVYNTFLLGNMAYVYLIASTINS	155
DB	251	VSLGQFASQGVGYMKAL-PALDCCGLAMLIIVLYIAIYVITICYLFILFASV---	306
QY	156	VLPMTSCDNEWNTPLCTPVT-----	SPOTN 180
DB	307	VLPMTSCNPNNTPECKDKTKLLDSCVIGDHPKIQIKNSTFCMTAYPNLTWVNTSOAN	366
QY	181	PNSSTPAKEPFRVRYLBOHKNSGLDMDGPIKPSLALCVGFVYLYVYSLKMGVSAKVV	240
DB	367	KTFYSGSEHYRYVYLK--ISAGIEYGEIETWMPRLPCLFLAWYLYVASLAKGITTSKVV	424
QY	241	WYALAPYVLLILLARCVTLPGATEGIRYLYLTPEMHKLONSKYWDAAISOIFESLPGCF	300

Db 423 YFTATFPYVYLLIRGTLPAGAGIYFTTPKKEKLTDAITVMDATQIFFSISAAW 484
OY 301 GTLLSSYNNKNNCYRDALITSSINCLTSLAGVIFSVLGVAHVNKSIIEVGLG 360
Db 485 GGLITLSSNNKNNCYRDLTYCTNSATIFAGVIFSVIGFMAKERNKVNENADOG 544
OY 361 PGLVIFVPEAIATMTGSVFMAIIFELMLITLGLDSTFGCLAVTALCDEYPRVLR 420
Db 545 PGIAFVYVEALTRLPLSPFWAIIFFELMLITLGLDMFATIEIYVSIISDEPKYLRTHK 604
OY 421 EYFVAVALLFTYICALPTTYGGVIVLDLNVYGECLALFVYFAAGVYVYDRS 480
Db 605 PVFTLGCCCFEIMGFPMITGGIYEQVLDVYASVALYIIAIFELVGISVYVGLQRC 664
OY 481 EDVRYMLGHTPGMFNRCMSYISPVFLVLFVFSVLAHEEMLGGEYTPSSITVGM 540
Db 665 EDIEMKIGQPNIFPKVCAFEVTPITLTILCFSPFQMEPMYIGSTRFMSVAVLGML 724
541 GTTVSCIPLYIIYKLTIFPGNCINRIKTQRP 573
Db 725 ACSVIMIPIMFVIMKYLAPGRFIERLKLVCSPQ 757

RESULT 15

151368
gamma-aminobutyric acid transport protein GAT-1 - Pacific electric ray
C:Species: Torpedo californica (Pacific electric ray)
C:Date: 13-Sep-1996 #sequence_revision 13-Sep-1996 #text_change 20-Aug-1999
C:Accession: I51368; S42808
R:Swanson, G.T.; Umbach, J.A.; Gundersen, C.B.
J. Neurochem. 63, 1-12, 1994
A:Title: G11a of the cholinergic electromotor nucleus of Torpedo are the source of the
A:Reference number: I51368; M0ID:94267441; PMID:8207419
A:Accession: I51368
A:Status: preliminary; translated from GB/EMBL/DBJ
A:Molecule type: mRNA
A:Residues: 1-598 <SMA>
A:Cross-references: EMBL:X77139; NID:g444009; PIDN:CAAS4394.1; PID:g444010
C:Genetics:
A:Gene: TGAT-1
C:Superfamily: gamma-aminobutyric acid transporter

Query Match 43.3%; Score 1360.5; DB 2; Length 598;
Best Local Similarity 45.5%; Pred. No. 2.9e-95;
Matches 255; Conservative 112; Mismatches 183; Indels 11; Gaps 6;

16 DLPTATQAKSRVYSLTPAR---QREYAKKAEPFLAVYGRAVDLGNWRRPYICYONG 72
19 DAPVSN-DKPKTLVAVQKTRKIPEREKKGGRYDFLLSCVGAIGLGNWRRPYILCKNG 77
OY 73 GGAFLIPYCVMLFGLPLFLELALGOYHRCGLTLMKRICPALKGVYAICMIDYMG 132
Db 78 GGAFLIPYPMTLFAGMPTFLFLECSLGQTSVGLGIW-RLAPMFKGVGLAAVLSFWLN 136
OY 133 MYNTLTIGNAVYYLLASLASINSVLPWTSQDNEMNPLCTPVTSPQTNPNSSTPAKEFE 192
Db 137 IYVVVIAIAIYYL--YNSFTSELPWQSGNSMNTDRCFNSYMTNSTNLSSPIVEWE 193
OY 193 RNVLEQKNSGLDDMKPIKPSLALCVGFVLYVFLSKMGVRSAGKVVWVATALAPYVLL 252
Db 194 RNM--HQLDGLDQPGQIRAPLAITLAIAMVLYFCIMKGVSWTGKVVYFSAIYPIML 251
OY 253 ILLARGVTLPGATEGIRYVLTPEMHLONSKWIDAASQIFSLGPGFTLLALSSYNK 312
Db 252 TLFERGVTLPGAREGLFTYITPDRLSDSEVWLDAAITQIFSYGLGLSLVALGSKNF 311
OY 313 NNNCYRDALITSSINCLTSLAGVIFSVLGVAHVNKSIIEVGLGPGVFIYVPEAI 372
Db 312 HNNVYRDSIIVCCINSTGSTAGVFYFSVGFMAHTNRPIDVAASGGLAFLAYPEAV 371
OY 373 ATMTGSVFAIIFFLMLITLGLDSTFGCLAVTALCDEYPRVLRGRHREYFAVALLFTY 432

Db 372 TQLPISPLMSILFFSMLMLGIDISQFCIVEGFTALVDEFPKLRGREIFTAMVCISY 431
OY 433 ICALPTTYGGVYLVLDLNVY-GPGLALFVFAEAGVYGVYDRSEEDVRTMIGHP 491
Db 432 LIGLSNITGGGLVFKLPFYTSASGMSLLFLVFETVYSKCYGNRRFVNIENYGHKP 491
OY 492 GWFWRTCMSYISPVFLVLFVFSVLAHEEMLGGEYTPSSITVGMGTTVSCIPLYI 551
Db 492 CLMVKLMSFFFTPIYGVFLFSAIQMKPLKMGSYIFPKMGOGVGMFMASSMMLPGYM 551
OY 552 IYKLTIFPGNCINRIKTQRP 572
Db 552 GYMFLLTSKSLKORLMTOP 572

Search completed: July 18, 2003, 22:01:19
Job time : 30 secs